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# WATER QUALITY MEMORANDUM

Utah Coal Regulatory Program

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June 12, 2012

TO: Internal File

THRU: Steve Christensen, Permit Supervisor *SC*

FROM: April A. Abate, Environmental Scientist III *AAA 6/13/2012*

RE: 2011 Fourth Quarter Water Monitoring, Nevada Electric Investment Corporation, Wellington Preparation Plant, C/007/0012, Task ID #3977

The Wellington Preparation Plant is currently in temporary cessation. No mining or coal processing activities currently take place there. Water-monitoring requirements are in Sections 7.23 and 7.31.2 through 7.31.22, and Tables 7.24-2 and 7.24-5 of the MRP.

**1. On what date does the MRP require a five-year re-sampling of baseline water data.**

Baseline parameters are collected in the year preceding permit renewal. The next scheduled permit renewal for the Wellington Preparation Plant is November 30, 2014.

**2. Were data submitted for all of the MRP required sites?**

**Streams and Ponds**

YES ☒ NO ☐

The Permittee is required to analyze samples from streams at SW-1, SW-2A, SW-3, and SW-4 and from ponds at SW-5, SW-6, SW-7, and SW-8 for the parameters in Table 7.24-5, and to measure flow only at SW-2. In addition, samples from SW-4 and SW-5 are to also be analyzed for benzene, toluene, ethylbenzene, xylene, and naphthalene (BTEXN) and propylene glycol. Monitoring is done quarterly.

During the fourth quarter 2011, samples were collected from SW-1 and SW-2A. Flow only was measured from SW-2. None of the other monitoring locations reported flow. None of the pond samples reported any water during this monitoring period.

**Wells**

YES ☒ NO ☐

The Permittee is required to analyze samples quarterly from GW-1, GW-3, GW-4, GW-6, GW-7, GW-8, GW-9, GW-9B, GW-10, GW-12, GW-13, GW-14, GW-15A, GW-15B, GW-16, and GW-17 for the parameters in Table 7.24-2, and to measure depth only at GW-2.

GW-3 was reported as dry. GW-12 was sampled but reported as likely influenced by surface water.

**UPDES**

YES ☒ NO ☐

Six UPDES permitted outfalls at the Wellington Preparation Plant are monitored monthly: #UTG040010-003, 004, 005, 006, 007, and 008. None of the UPDES sites reported flow during the fourth quarter 2011.

**3. Were all required parameters reported for each site?**

**Streams and Ponds**

YES ☒ NO ☐

**Wells**

YES ☒ NO ☐

**UPDES**

YES ☐ NO ☐

Not applicable

**4. Were any irregularities found in the data?**

**Streams and Ponds**

YES ☐ NO ☒

**Wells**

YES ☒ NO ☐

The following table summarizes the parameters that were outside of at least two standard deviations for this quarter:

Well	Parameter	Concentration in mg/L	Std Deviation	Mean mg/L
GW-1	Cl	104	2.22	74.04
GW-9B	D-Mg	504.37	2.06	674.9
GW-15	Cond (FLD)	7510	4.15	3836.7
	D-Mg	387.05	5.07	190.16
	D-Na	1068.1	5.32	389.95
	Cl	255	7.23	87.82
	SO4	3902	4.45	2099.63
	T-Alk	959	9.71	515.71
	T-Hardness	2792	3.16	1889.63
	L-SpCond	7110	4.61	4183.78

	TDS	7034	4.63	3812.51
	Bcrb CaCO3	959	7.70	513.17
	T-Ca T-Ani	Outside of 5%		
GW-15B	T-Alk	538	3.10	479.82
	Bcrb CaCO3	538	3.07	474.17
GW-17	SO4	77	2.04	351.21

\*result reported in ug/L

Overall water quality in the reach of the Price River that runs through the permit area was generally good for 2011. Total iron was reported higher than 1.0 mg/L at the Farnham Diversion 3 of the 4 quarters this year. The following table averages significant water quality parameters for the four sampling quarters (reported in mg/L), except pH in units:

D.O.	TSS	O/G	D-B	D-Fe	D-Pb	D-Mn	D-Se	T-Fe	T-Mn	T-Se	T-B	D-Mg	T-Hardns	TDS	F-pH
8.81	300.13	<5	0.12	<.03	<.01	0.03	<.02	2.39	0.15	<20	0.14	51.08	460.75	818.75	8.45

**UPDES**

YES ☐ NO ☐

Not Applicable. No discharges were reported from any of the UPDES monitoring locations.

**5. Did the Permittee make a timely submittal of all data, including initially missing data, and satisfactorily explain irregular data?**

YES ☒ NO ☐

**6. Does the Mine Permittee need to submit more information to fulfill this quarter's monitoring requirements?**

YES ☐ NO ☒

**7. Follow-up from last quarter, if necessary.**

None

**8. Based on your review, what further actions, if any, do you recommend?**

The Permittee is in the process of developing an up-to-date Probable Hydrologic Consequence (PHC) document for the Wellington Mining and Reclamation Plan. During the midterm review, a PHC document was required as part of the submittal due on July 20, 2012.

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